

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

HESSIAN FLY

A radio talk by Dr. W. H. Larrimer, Bureau of Entomology, United States Department of Agriculture, delivered 12:55- 1:00 p.m., Wednesday, August 31, 1932, in the Department of Agriculture period, broadcast by a network of 47 associate NBC radio stations.

- - - - -

Last spring, in discussing the status of outbreaks of cereal and forage crop insects for the year, you will remember that I told you the Hessian fly was on the increase throughout practically the entire Winter Wheat Belt. At that time I pointed out that Hessian fly control was largely of a preventive nature and practically nothing could be done then to remedy the situation. Now is the time to follow up that suggestion. All that can be done to control the Hessian fly in your next winter wheat crop must be done before that crop is sown this fall. The spring generation of flies met with fairly favorable weather conditions and increased until at the present time there are enough fly "flaxseeds" in wheat stubble to threaten seriously the next wheat crop.

The prospect of Hessian fly injury to winter wheat plantings this fall is unusually threatening in western Maryland, Pennsylvania, Ohio, Indiana, Illinois, Missouri, southeastern Nebraska, and eastern Kansas. In these sections, practically every stubble field contains enough of the flies in the flaxseed stage to be a potential source of heavy infestation in any early-sown wheat this fall. The prospect is less threatening in eastern Maryland, New York, southern Michigan, Kentucky, Tennessee, Iowa, and Oklahoma but, with fall weather favorable to its activity, the fly is likely to cause material injury to the 1933 crop in these States also.

You will remember that there are usually two main generations of the fly each year -- one in the spring and one in the fall. In each generation, the fly passes through four different forms, entirely unlike in appearance. The fly itself is very small; only about one-tenth of an inch long -- the body of an obscure dark color and formed much like a small mosquito. The tiny, slightly reddish eggs are placed in the grooves of the upper surface of the young wheat leaves. When you look for them, allow sunlight to fall directly upon the infested leaf. The small larvae which hatch from these eggs crawl down to the base of the leaf sheaths and feed on the sap of the plant. At full growth they somewhat resemble grains of rice. From this stage they transform to the brown flaxseeds you find in the summer and winter months on infested wheat.

The chief host plants of the Hessian fly are wheat and barley, although rye is also attacked. Oats is never injured.

While there have been local outbreaks of the Hessian fly from year to year and during the past two seasons the infestation has been increasing, there has been no general outbreak for about twelve years. Therefore, the present threat of a general outbreak is the worst in a number of years. The secret of control is to time the seeding of wheat so that the young plants do not appear above the

(over)

ground until the adult flies have emerged from their over-summering flaxseeds. The flies live only a day or two and, if they find no young wheat, die without finding suitable place to lay their eggs. Once wheat is badly infested, you can do nothing to save the crop.

To control the Hessian fly, no new or expensive method is required; it is only necessary to time appropriately those operations that are usually practiced in good wheat culture:

Prepare a good seed-bed early and so far as possible destroy all volunteer wheat;

Make sure that there is plenty of plant food available in the soil so that the young wheat plants may go into the winter in good shape;

Select good seed and, if necessary, treat it for diseases;

And last, but most important, sow on dates recommended for your locality. You may get these dates from your County Agent, your State Experiment Station, or direct from the Bureau of Entomology, United States Department of Agriculture.

Growers who follow these practices will not only control the Hessian fly but will obtain the highest yields of the best quality wheat.